










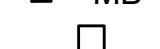









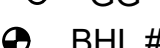





































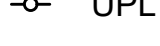





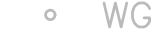


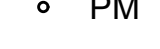





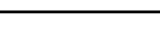





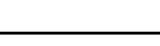



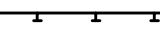

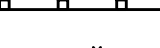







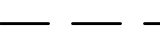

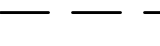

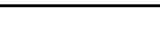














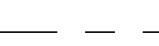

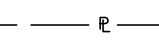

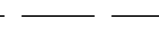
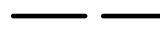































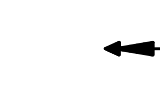




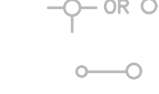




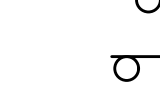











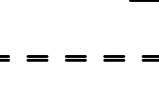









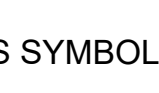
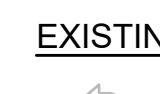



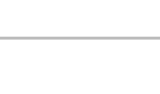








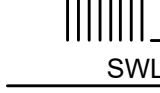
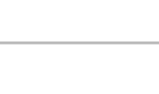
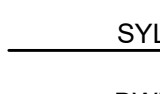

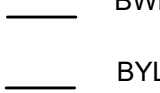

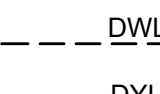

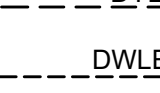

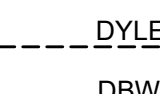












GENERAL SYMBOLS

EXISTING	PROPOSED	DESCRIPTION
		JERSEY BARRIER
		CATCH BASIN
		CATCH BASIN CURB INLET
		FLAG POLE
		GAS PUMP
		MAIL BOX
		POST SQUARE
		POST CIRCULAR
		WELL
		ELECTRIC HANDHOLE
		FENCE GATE POST
		GAS GATE
		BORING HOLE
		MONITORING WELL
		TEST PIT
		HYDRANT
		LIGHT POLE
		COUNTY BOUND
		GPS POINT
		CABLE MANHOLE
		DRAINAGE MANHOLE
		ELECTRIC MANHOLE
		GAS MANHOLE
		MISC MANHOLE
		SEWER MANHOLE
		TELEPHONE MANHOLE
		WATER MANHOLE
		MASSACHUSETTS HIGHWAY BOUND
		MONUMENT
		STONE BOUND
		TOWN OR CITY BOUND
		TRAVERSE OR TRIANGULATION STATION
		TROLLEY POLE OR GUY POLE
		TRANSMISSION POLE
		UTILITY POLE W/ FIREBOX
		UTILITY POLE WITH DOUBLE LIGHT
		UTILITY POLE W / 1 LIGHT
		UTILITY POLE
		BUSH
		TREE
		STUMP
		SWAMP / MARSH
		WATER GATE
		PARKING METER
		OVERHEAD CABLE/WIRE
		CURBING
		CONTOURS (ON-THE-GROUND SURVEY DATA)
		CONTOURS (PHOTOGRAMMETRIC DATA)
		UNDERGROUND DRAIN PIPE (DOUBLE LINE 24 INCH AND OVER)
		UNDERGROUND ELECTRIC DUCT (DOUBLE LINE 24 INCH AND OVER)
		UNDERGROUND GAS MAIN (DOUBLE LINE 24 INCH AND OVER)
		UNDERGROUND SEWER MAIN (DOUBLE LINE 24 INCH AND OVER)
		UNDERGROUND TELEPHONE DUCT (DOUBLE LINE 24 INCH AND OVER)
		UNDERGROUND WATER MAIN (DOUBLE LINE 24 INCH AND OVER)
		BALANCED STONE WALL
		GUARD RAIL - STEEL POSTS
		GUARD RAIL - WOOD POSTS
		CHAIN LINK OR METAL FENCE
		WOOD FENCE
		EROSION CONTROL BARRIER
		TREE LINE
		SAWCUT LINE
		TOP OR BOTTOM OF SLOPE
		EDGE OF PAVEMENT
		LIMIT OF MICROMILLING AND OVERLAY
		BANK OF RIVER OR STREAM
		BORDER OF WETLAND
		100 FT WETLAND BUFFER
		200 FT RIVERFRONT BUFFER
		STATE HIGHWAY LAYOUT
		TOWN OR CITY LAYOUT
		COUNTY LAYOUT
		RAILROAD SIDELINE
		TOWN OR CITY BOUNDARY LINE
		PROPERTY LINE OR APPROXIMATE PROPERTY LINE
		EASEMENT

TRAFFIC SYMBOLS

EXISTING	PROPOSED	DESCRIPTION
		CONTROLLER PHASE ACTUATED
		TRAFFIC SIGNAL HEAD (SIZE AS NOTED)
		WIRE LOOP DETECTOR (6' x 6' TYP UNLESS OTHERWISE SPECIFIED)
		VIDEO DETECTION CAMERA
		MICROWAVE DETECTOR
		PEDESTRIAN PUSH BUTTON, SIGN (DIRECTIONAL ARROW AS SHOWN) AND SADDLE
		EMERGENCY PREEMPTION CONFIRMATION STROBE LIGHT
		VEHICULAR SIGNAL HEAD
		VEHICULAR SIGNAL HEAD, OPTICALLY PROGRAMMED
		FLASHING BEACON
		PEDESTRIAN SIGNAL HEAD, (TYPE AS NOTED OR AS SPECIFIED)
		RAILROAD SIGNAL
		SIGNAL POST AND BASE (ALPHA-NUMERIC DESIGNATION NOTED)
		MAST ARM, SHAFT AND BASE (ARM LENGTH AS NOTED)
		HIGH MAST POLE OR TOWER
		SIGN AND POST
		SIGN AND POST (2 POSTS)
		MAST ARM WITH LUMINAIRE
		OPTICAL PRE-EMPTION DETECTOR
		CONTROL CABINET, GROUND MOUNTED
		CONTROL CABINET, POLE MOUNTED
		FLASHING BEACON CONTROL AND METER PEDESTAL
		LOAD CENTER ASSEMBLY
		PULL BOX 12"x12" (OR AS NOTED)
		ELECTRIC HANDHOLE 12"x24" (OR AS NOTED)
		TRAFFIC SIGNAL CONDUIT

PAVEMENT MARKINGS SYMBOLS

EXISTING	PROPOSED	DESCRIPTION
		PAVEMENT ARROW - WHITE
		LEGEND "ONLY" - WHITE
		STOP LINE
		CROSSWALK
		SOLID WHITE LINE - 6" WIDE (UNLESS OTHERWISE NOTED)
		SOLID YELLOW LINE - 6" WIDE (UNLESS OTHERWISE NOTED)
		BROKEN WHITE LINE - 6" WIDE (UNLESS OTHERWISE NOTED)
		BROKEN YELLOW LINE - 6" WIDE (UNLESS OTHERWISE NOTED)
		DOTTED WHITE LINE - 6" WIDE (UNLESS OTHERWISE NOTED)
		DOTTED YELLOW LINE - 6" WIDE (UNLESS OTHERWISE NOTED)
		DOTTED WHITE LINE EXTENSION - 6" WIDE (UNLESS OTHERWISE NOTED)
		DOTTED YELLOW LINE EXTENSION - 6" WIDE (UNLESS OTHERWISE NOTED)
		DOUBLE WHITE LINE - 6" WIDE (UNLESS OTHERWISE NOTED)
		DOUBLE YELLOW LINE - 6" WIDE (UNLESS OTHERWISE NOTED)

GENERAL ABBREVIATIONS	
ABAN	ABANDON
ADJ	ADJUST
APPROX	APPROXIMATE
A.C.	ASPHALT CONCRETE
ACCM PIPE	ASPHALT COATED CORRUGATED METAL PIPE
BIT.	BITUMINOUS
BC	BOTTOM OF CURB
BD.	BOUND
BL	BASELINE
BLDG	BUILDING
BM	BENCHMARK
BO	BY OTHERS
BOS	BOTTOM OF SLOPE
BR.	BRIDGE
CC	CEMENT CONCRETE
CCM	CEMENT CONCRETE MASONRY
CEM	CEMENT
CI	CURB INLET
CLF	CHAIN LINK FENCE
CL	CENTERLINE
CO.	COUNTY
CONC	CONCRETE
CONT	CONTINUOUS / CONTINUED
CONST	CONSTRUCTION
CR GR	CROWN GRADE
DIA	DIAMETER
DWY	DRIVEWAY
ELEV (or EL.)	ELEVATION
EMB	EMBANKMENT
EOP	EDGE OF PAVEMENT
EQ	EQUAL
EXIST (or EX)	EXISTING
EXC	EXCAVATION
FDN.	FOUNDATION
FDP	FULL DEPTH PAVEMENT
FLDSTN	FIELDSTONE
GAR	GARAGE
GD	GROUND
GRAN	GRANITE
GRAV	GRAVEL
GRD	GUARD
HES	HIGH ENERGY STRENGTH
HMA	HOT MIX ASPHALT
HOR	HORIZONTAL
HWY	HIGHWAY
JCT	JUNCTION
LOAM	LOAM BORROW
LSA	LANDSCAPED AREA
LT	LEFT
MAHWL	MEAN AVERAGE HIGH WATER LINE
MAX	MAXIMUM
MB	MAILBOX
MHB	MASSACHUSETTS HIGHWAY BOUND
MIN	MINIMUM
MOD	MODIFIED
MSE	MECHANICALLY STABILIZED EARTH
NERR	NEW ENGLAND RAILROAD
NIC	NOT IN CONTRACT
NO.	NUMBER
NTS	NOT TO SCALE
O.C.	ON CENTER
O.D.	OUTSIDE DIAMETER
P.G.L.	PROFILE GRADE LINE
PREV	PREVIOUS/PREVIOUSLY
PROJ	PROJECT
PROP	PROPOSED
PSB	PLANTABLE SOIL BORROW
PVMT	PAVEMENT
R&D	REMOVE AND DISCARD
R&R	REMOVE AND RESET
R&S	REMOVE AND STACK
RD	ROAD
RDWY	ROADWAY
REB	REBUILD
REM	REMOVE
REMOD	REMODEL
RET	RETAIN
RET WALL	RETAINING WALL
ROW	RIGHT OF WAY
RR	RAILROAD
RT	RIGHT
SB	STONE BOUND
SHLD	SHOULDER
SHLO/S.H.L.O.	STATE HIGHWAY LAYOUT LINE

GENERAL ABBREVIATIONS (CONT)	
ST	STREET
STA	STATION
STD	STANDARD
SW	SIDEWALK
TEMP	TEMPORARY
TC	TOP OF CURB
TOS	TOP OF SLOPE
TRANS	TRANSITION
TRM	TURF REINFORCING MAT
TYP	TYPICAL
VAR	VARIES
VERT	VERTICAL
WALK	SIDEWALK
WCR	WHEEL CHAIR RAMP
WP	WORKING POINT
X-SECT	CROSS SECTION

UTILITY ABBREVIATIONS	
CB	CATCH BASIN
CBCI	CATCH BASIN WITH CURB INLET
CIP	CAST IRON PIPE
CIT	CHANGE IN TYPE
CMP	CORRUGATED METAL PIPE
CSP	CORRUGATED STEEL PIPE
DI	DROP INLET
DIP	DUCTILE IRON PIPE
FES	FLARED END SECTION
F&C	FRAME AND COVER
F&G	FRAME AND GRATE
GG	GAS GATE
GI	GUTTER INLET
GIP	GALVANIZED IRON PIPE
HDPE	HIGH DENSITY POLYETHYLENE PIPE
HDW	HEADWALL
HYD	HYDRANT
INV	INVERT
LB	LEACH BASIN
LP	LIGHT POLE
MH	MANHOLE
MW	MONITORING WELL
OHW	OVERHEAD WIRE
PVC	POLYVINYLCHLORIDE PIPE
PWW	PAVED WATER WAY
RCP	REINFORCED CONCRETE PIPE
SMH	SEWER MANHOLE
TSV&B	TAPPING SLEEVE VALVE & BOX
UP	UTILITY POLE
WG	WATER GATE
WIP	WROUGHT IRON PIPE
WM	WATER METER/WATER MAIN

ALIGNMENT & GRADING ABBREVIATIONS	
CC	CENTER OF CURVE
HP	HIGH POINT
I.T.	INTERSECTION OF TANGENT
LP	LOW POINT
PC	POINT OF CURVATURE
PCC	POINT OF COMPOUND CURVATURE
PI	POINT OF INTERSECTION
PNT	POINT
POC	POINT ON CURVE
POT	POINT ON TANGENT
PRC	POINT OF REVERSE CURVATURE
PT	POINT OF TANGENCY
∟PT	ANGLE POINT
R	RADIUS OF CURVATURE
T	TANGENT DISTANCE OF CURVE
TAN	TANGENT
25.45	SPOT ELEVATION

PROFILE ABBREVIATIONS	
AD	ALGEBRAIC DIFFERENCE IN RATES OF GRADE
HSD	HORIZONTAL SIGHT DISTANCE
K	RATE OF VERTICAL CURVATURE
L	LENGTH OF CURVE
PVC	POINT OF VERTICAL CURVATURE
PVCC	POINT OF VERTICAL COMPOUND CURVATURE
PVI	POINT OF VERTICAL INTERSECTION
PVRC	POINT OF VERTICAL REVERSE CURVATURE
PVT	POINT OF VERTICAL TANGENCY
SSD	STOPPING SIGHT DISTANCE
VC	VERTICAL CURVE

TRAFFIC & SIGNAL ABBREVIATIONS	
AADT	ANNUAL AVERAGE DAILY TRAFFIC
CAB.	CABINET
CCVE	CLOSED CIRCUIT VIDEO EQUIPMENT
COND	CONDUIT
CW	CROSS WALK
DW	STEADY DON'T WALK - PORTLAND ORANGE
DHV	DESIGN HOURLY VOLUME
FDW	FLASHING DON'T WALK
FR	FLASHING CIRCULAR RED
FRL	FLASHING RED LEFT ARROW
FRR	FLASHING RED RIGHT ARROW
FY	FLASHING CIRCULAR AMBER
FYL	FLASHING AMBER LEFT ARROW
FYR	FLASHING AMBER RIGHT ARROW
G	STEADY CIRCULAR GREEN
GL	STEADY GREEN LEFT ARROW
GR	STEADY GREEN RIGHT ARROW
GSL	STEADY GREEN SLASH LEFT ARROW
GSR	STEADY GREEN SLASH RIGHT ARROW
GV	STEADY GREEN VERTICAL ARROW
HH	HAND HOLE
OL	OVERLAP
PB	PULL BOX
PED	PEDESTRIAN
PTZ	PAN, TILE, ZOOM
R	STEADY CIRCULAR RED
RL	STEADY RED LEFT ARROW
RR	STEADY RED RIGHT ARROW
SL	STOP LINE
T	TRUCK %
TS OR TR SIG	TRAFFIC SIGNAL
TSC	TRAFFIC SIGNAL CONDUIT
W	STEADY WALK
Y	STEADY CIRCULAR AMBER
YL	STEADY AMBER LEFT ARROW

BROCKTON
KEITH PARK OFFSITE IMPROVEMENTS
LEGEND & ABBREVIATIONS
SHEET 3 OF 12

GENERAL NOTES:

- EXISTING CONDITIONS AND TOPOGRAPHICAL INFORMATION FROM AN ACTUAL FIELD SURVEY CONDUCTED BY VANASSE HANGEN BRUSTLIN, INC., WATERTOWN, MASSACHUSETTS IN THE SUMMER 2020.
- HORIZONTAL DATUM IS BASED ON MASS GRID SYSTEM, NAD 1983. ELEVATIONS SHOWN REFER TO NAVD OF 1988.
- THE CONTRACTOR SHALL VERIFY ALL EXISTING DIMENSIONS AND GRADES IN THE FIELD BEFORE COMMENCING WORK AND PROMPTLY NOTIFY THE ENGINEER OF ANY DISCREPANCIES.
- THE LOCATIONS OF EXISTING UNDERGROUND UTILITIES ARE SHOWN IN AN APPROXIMATE WAY ONLY AND HAVE NOT BEEN INDEPENDENTLY VERIFIED BY THE TOWN OR ITS REPRESENTATIVE. THE CONTRACTOR SHALL DETERMINE THE EXACT LOCATION OF ALL EXISTING UTILITIES BEFORE COMMENCING WORK, AND SHALL BE FULLY RESPONSIBLE FOR ANY AND ALL DAMAGES WHICH MIGHT BE OCCASIONED BY THE CONTRACTOR'S FAILURE TO EXACTLY LOCATE AND PRESERVE ANY AND ALL UNDERGROUND UTILITIES.
- THE CONTRACTOR SHALL VERIFY BY TEST PIT, THE LOCATIONS OF EXISTING UTILITIES WHICH MAY CONFLICT WITH PROPOSED CONDUIT AND SIGNAL EQUIPMENT. ANY FIELD ADJUSTMENTS REQUIRED WILL BE MADE AS APPROVED OR DIRECTED BY THE ENGINEER.
- WHERE AN EXISTING UTILITY IS FOUND TO CONFLICT WITH THE PROPOSED WORK, THE LOCATION, ELEVATION AND SIZE OF THE UTILITY SHALL BE ACCURATELY DETERMINED WITHOUT DELAY BY THE CONTRACTOR, AND THE INFORMATION FURNISHED TO THE ENGINEER FOR RESOLUTION OF THE CONFLICT.
- TREES AND SHRUBS WITHIN THE LIMITS OF GRADING SHALL BE REMOVED ONLY UPON APPROVAL OF THE ENGINEER.
- AREAS OUTSIDE THE LIMITS OF PROPOSED WORK DISTURBED BY THE CONTRACTOR'S OPERATIONS SHALL BE RESTORED BY THE CONTRACTOR TO THEIR ORIGINAL CONDITION AT NO EXPENSE TO THE TOWN.
- THE TERM "PROPOSED" (PROP) MEANS WORK TO BE CONSTRUCTED USING NEW MATERIALS OR, WHERE APPLICABLE, RE-USING EXISTING MATERIALS IDENTIFIED AS "REMOVE AND RESET" (R&R).
- JOINTS BETWEEN NEW ASPHALT CONCRETE ROADWAY PAVEMENT AND SAWCUT EXISTING PAVEMENT SHALL BE SEALED WITH HMA JOINT SEALER AND BACKSANDDED.
- EXISTING SIGNS WITHIN THE PROJECT LIMITS SHALL BE RETAINED UNLESS INDICATED OTHERWISE ON THE DRAWINGS.
- IF SUITABLE, EXISTING GRANITE CURB & EDGING SHALL BE RE-USED IN THE PROPOSED WORK, EXCEPT CURVED STONES OF A DIFFERENT RADIUS THAN PROPOSED CURB.
- EXISTING STATE, COUNTY, CITY, AND TOWN LOCATION LINES AND PRIVATE PROPERTY LINES HAVE BEEN ESTABLISHED FROM AVAILABLE INFORMATION AND THEIR EXACT LOCATIONS ARE NOT GUARANTEED.
- THE CONTRACTOR SHALL EXERCISE DUE CARE WHEN WORKING AROUND ALL PROPERTY BOUNDS WHICH ARE TO REMAIN. SHOULD ANY DAMAGE TO A BOUND RESULT FROM THE ACTIONS OF THE CONTRACTOR, THE CONTRACTOR SHALL HAVE THE BOUND REPLACED AND/OR REALIGNED BY A LICENSED PROFESSIONAL SURVEYOR AS DIRECTED BY THE ENGINEER AT NO ADDITIONAL COST.

PAVEMENT NOTES

PROPOSED CEMENT CONCRETE SIDEWALK AND WHEELCHAIR RAMPS

SURFACE: 4" CEMENT CONCRETE AIR ENTRAINED 4000 PSI ¾", 610.

++ SUBBASE: 8" GRAVEL BORROW (TYPE B)

PROPOSED HOT MIX ASPHALT WALK

SURFACE: 1.25" SUPERPAVE SURFACE COURSE 9.5 (SSC-9.5)

INTERMEDIATE: 1.75" SUPERPAVE SURFACE COURSE 12.5 (SSC-12.5)

++ SUBBASE: 8" GRAVEL BORROW (TYPE B)

PROPOSED HOT MIX ASPHALT DRIVEWAY

SURFACE: 1.5" SUPERPAVE SURFACE COURSE 9.5 (SSC-9.5)

INTERMEDIATE: 2.5" SUPERPAVE SURFACE COURSE 12.5 (SSC-12.5)

++ SUBBASE: 8" GRAVEL BORROW (TYPE B)

++ WHERE EXISTING GRAVEL IS FOUND TO BE SUITABLE, THE EXISTING GRAVEL MAY BE USED IN PROPOSED SUBBASE, AFTER APPROVAL BY THE ENGINEER.

TERMINAL PLACE
PUBLIC - 50.00' WIDE

RIVERSIDE AVENUE
PUBLIC - 40.00' WIDE

GARFIELD STREET
PUBLIC - 41.25' WIDE

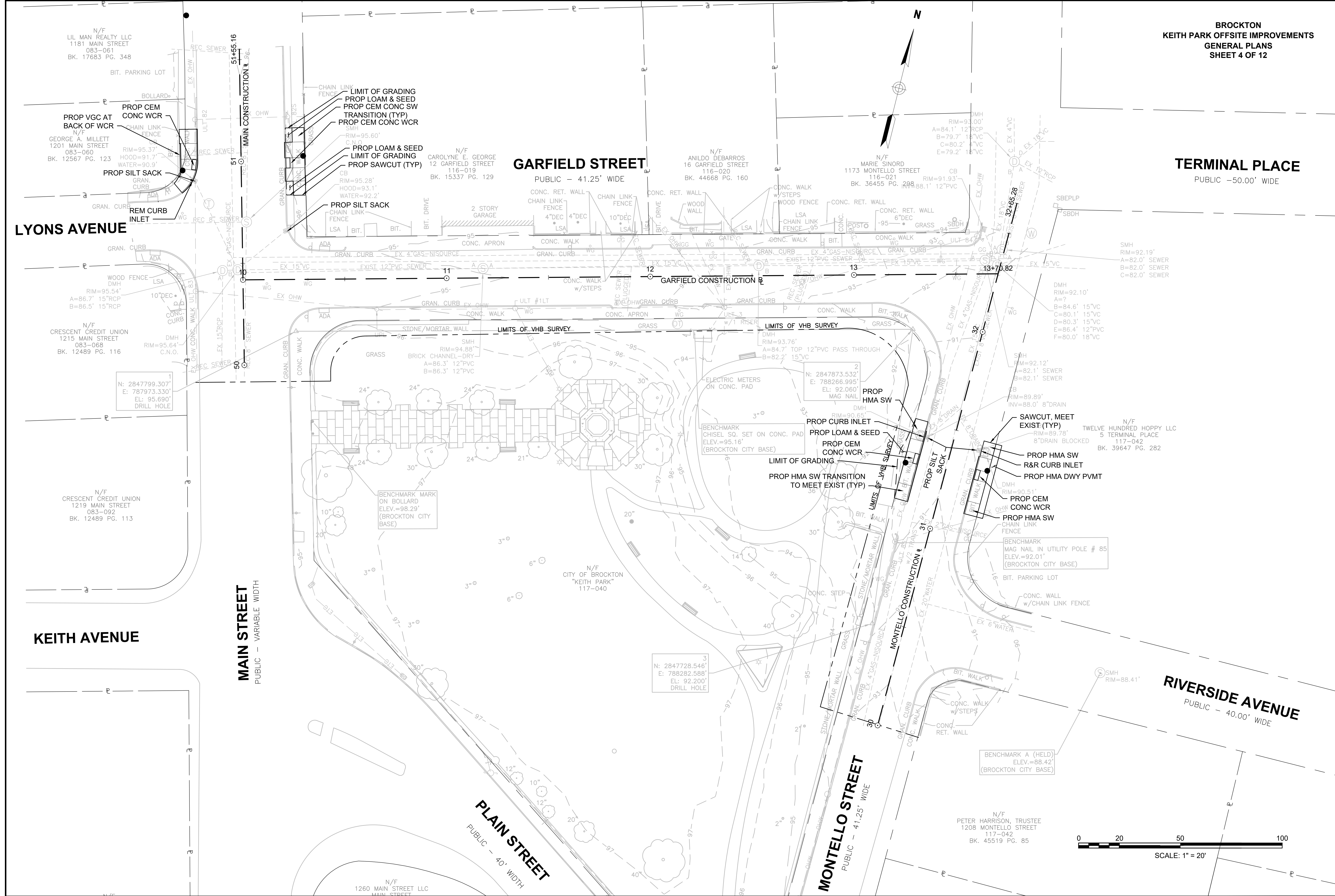
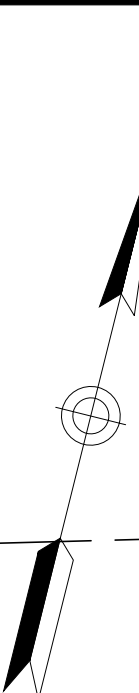
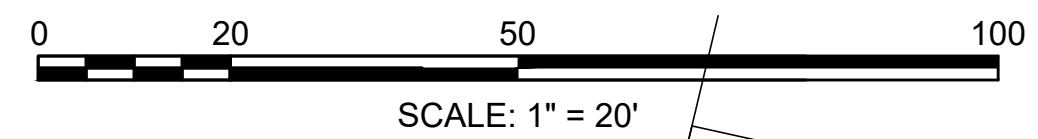
MONTELLO STREET
PUBLIC - 41.25' WIDE

PLAIN STREET
PUBLIC - 40' WIDE

MAIN STREET
PUBLIC - VARIABLE WIDTH

KEITH AVENUE

LYONS AVENUE



TERMINAL PLACE
PUBLIC - 50.00' WIDE

LYONS AVENUE

N/F
LIL MAN REALTY LLC
1181 MAIN STREET
083-061
BK. 17683 PG. 348

N/F
GEORGE A. MILLETT
1201 MAIN STREET
083-060
BK. 12567 PG. 123

STA 50+41.87 MAIN STREET BL
STA 10+00.00 GARFIELD STREET BL
N/F
CRESCENT CREDIT UNION
1215 MAIN STREET
083-068
BK. 12489 PG. 116

1
N: 2847799.307'
E: 787973.330'
EL: 95.690'
DRILL HOLE

N/F
CRESCENT CREDIT UNION
1219 MAIN STREET
083-092
BK. 12489 PG. 113

KEITH AVENUE

MAIN STREET
PUBLIC - VARIABLE WIDTH

GARFIELD STREET

PUBLIC - 41.25' WIDE

N/F
CAROLYN E. GEORGE
12 GARFIELD STREET
116-019
BK. 15337 PG. 129

N/F
ANILDO DEBARROS
16 GARFIELD STREET
116-020
BK. 44668 PG. 160

N/F
MARIE SINORD
1173 MONTELLO STREET
116-021
BK. 36455 PG. 298

N/F
TWELVE HUNDRED HOPPY LLC
5 TERMINAL PLACE
117-042
BK. 39647 PG. 282

N/F
CITY OF BROCKTON
"KEITH PARK"
117-040

3
N: 2847728.546'
E: 788282.588'
EL: 92.200'
DRILL HOLE

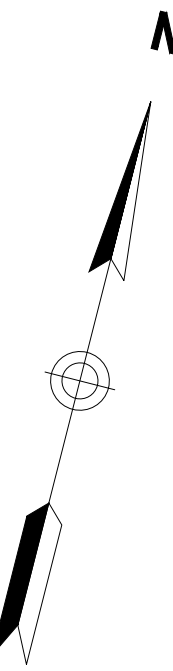
N/F
PETER HARRISON, TRUSTEE
1208 MONTELLO STREET
117-042
BK. 45519 PG. 85

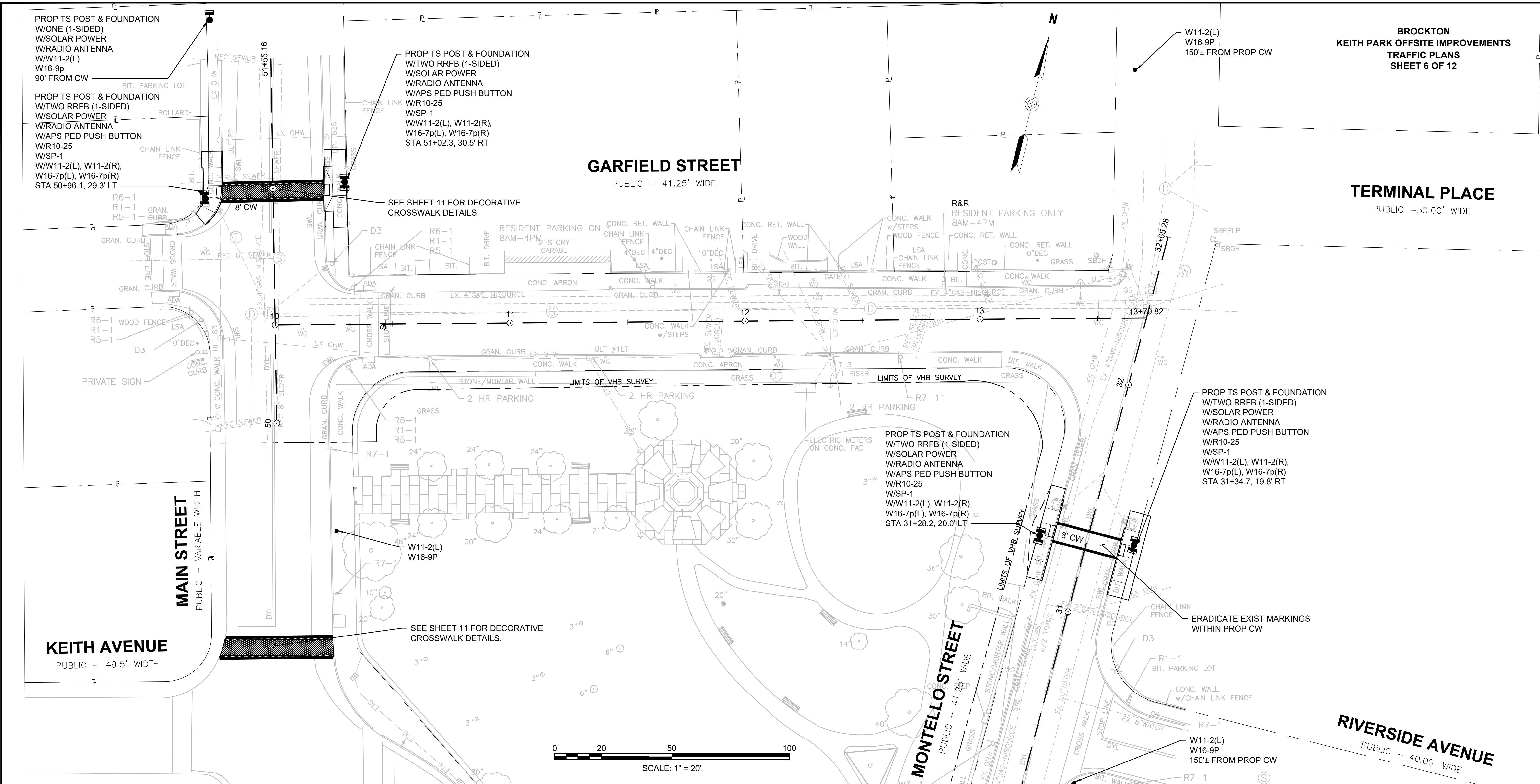
0 20 50 100
SCALE: 1" = 20'

PLAIN STREET
PUBLIC - 40' WIDE

MONTELLO STREET
PUBLIC - 41.25' WIDE

RIVERSIDE AVENUE
PUBLIC - 40.00' WIDE





BROCKTON
KEITH PARK OFFSITE IMPROVEMENTS
TRAFFIC PLANS
SHEET 6 OF 12

TERMINAL PLACE
PUBLIC - 50.00' WIDE

MAIN STREET
PUBLIC - VARIABLE WIDTH

KEITH AVENUE
PUBLIC - 49.5' WIDTH

MONTELLO STREET
PUBLIC - 41.25' WIDE

RIVERSIDE AVENUE
PUBLIC - 40.00' WIDE

LIST OF MAJOR ITEMS REQUIRED

MAIN STREET AT GARFIELD STREET

PAY ITEM	QUANTITY	DESCRIPTION
824.211	3	TS POST STANDARD INCL. FOUNDATION
	3	NEMA TYPE 3R CONTROL CABINET
	5	L.E.D. RECTANGULAR DUAL YELLOW BEACON (RRFB)
	3	SOLAR PANEL
	3	RADIO ANTENNA
	2	APS PEDESTRIAN PUSH BUTTON W/R10-25
832.	3	BATTERY SYSTEMS
	2	SP-1
	4	W11-2(L)
	2	W11-2(R)
	2	W16-7p(L)
	2	W16-7p(R)
	2	W16-9p

PLUS NECESSARY DUCT, CABLE, LABOR, MISCELLANEOUS MATERIAL AND EQUIPMENT TO COMPLETE THE INSTALLATION AND PROVIDE AN OPERATING RRFB SYSTEM

LIST OF MAJOR ITEMS REQUIRED






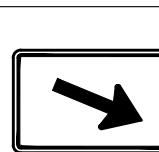


MONTELLO STREET AT RIVERSIDE AVENUE

PAY ITEM	QUANTITY	DESCRIPTION
824.212	2	TS POST STANDARD INCL. FOUNDATION
	2	NEMA TYPE 3R CONTROL CABINET
	4	L.E.D. RECTANGULAR DUAL YELLOW BEACON (RRFB)
	2	SOLAR PANEL
	2	RADIO ANTENNA
	2	APS PEDESTRIAN PUSH BUTTON W/R10-25
832.	2	BATTERY SYSTEMS
	2	SP-1
	4	W11-2(L)
	2	W11-2(R)
	2	W16-7p(L)
	2	W16-7p(R)
	2	W16-9p

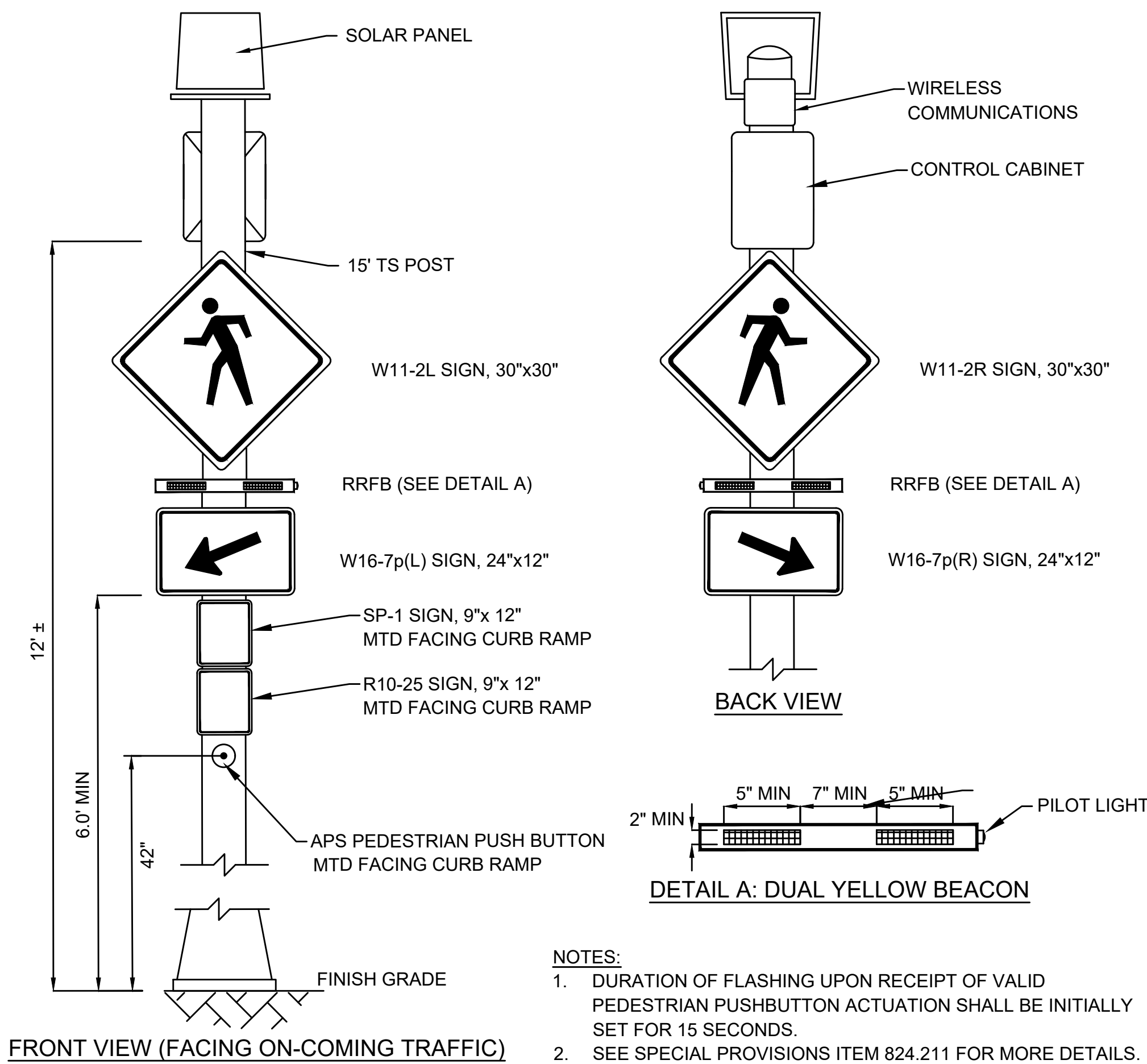
PLUS NECESSARY DUCT, CABLE, LABOR, MISCELLANEOUS MATERIAL AND EQUIPMENT TO COMPLETE THE INSTALLATION AND PROVIDE AN OPERATING RRFB SYSTEM

CONSTRUCTION NOTES

- SEE SHEET 7 FOR DETAILS ON RRFB SYSTEM.
- ALL PROPOSED PAVEMENT MARKINGS SHALL BE REFLECTORIZED THERMOPLASTIC UNLESS OTHERWISE NOTED.
- WHERE EXISTING PAVEMENT MARKINGS ARE DIFFERENT THAN PROPOSED MARKINGS SHOWN, REMOVE BY AN APPROVED METHOD.
- FOUNDATIONS FOR RRFBs TO BE LOCATED BY STATION AND OFFSET.
- RETAIN ALL EXISTING SIGNS UNLESS OTHERWISE NOTED.
- TS POST/POLE, WITH PEDESTRIAN PUSH BUTTON, NOT LOCATED WITHIN A PAVED SURFACE SHALL BE POSITIONED SO AS TO PROVIDE A 10" MAX CLEAR REACH ZONE BETWEEN THE PEDESTRIAN PUSH BUTTON AND THE PAVED SURFACE PER 521 CMR AND AS SHOWN IN THE CONSTRUCTION DETAILS.

TRAFFIC SIGN SUMMARY													
IDENTIFI- CATION NUMBER	SIZE OF SIGN		TEXT	TEXT DIMENSIONS (INCHES)			NUMBER OF SIGNS REQUIRED	COLOR			POST SIZE AND NUMBER REQUIRED	UNIT AREA (S.F.)	AREA IN SQUARE FEET
	WIDTH	HEIGHT		LETTER HEIGHT	VERTICAL SPACING	ARROW RTE. MKR.		BACK- GROUND	LEGEND	BORDER			
R10-25	9"	12"		SEE FHWA "STANDARD HIGHWAY SIGNS, 2004 EDITION"; AS AMENDED			4	WHITE	BLACK	BLACK	4 MTD ON TS POST	PAID UNDER ITEMS 824.211 & 824.212	
W11-2(L)	30"	30"					8	FLOURSCENT YELLOW- GREEN	BLACK	BLACK	3-P5 5 MTD ON TS POST	6.25	50.00
W11-2(R)	30"	30"					4	FLOURSCENT YELLOW- GREEN	BLACK	BLACK	4 MTD ON TS POST	6.25	25.00
W16-7p(L)	24"	12"					4	FLOURSCENT YELLOW- GREEN	BLACK	BLACK	4 MTD ON TS POST	2.00	8.00
W16-7p(R)	24"	12"					4	FLOURSCENT YELLOW- GREEN	BLACK	BLACK	4 MTD ON TS POST	2.00	8.00
W16-9p	24"	12"					4	FLOURSCENT YELLOW- GREEN	BLACK	BLACK	3 MTD W/OTHERS 1 MTD ON TS POST	2.00	8.00
SP-1	9"	12"		1" C 1" C 1" C 1" C 1" C	1.5" 1" 1" 1" 1.5"	N/A	4	YELLOW	BLACK	BLACK	4 MTD ON TS POST	0.75	3.00

NOTES:
1. HIGH INTENSITY REFLECTIVE SHEETING SHALL BE USED FOR ALL SIGNS. SEE FHWA "STANDARD HIGHWAY SIGNS, 2004 EDITION" FOR TEXT DIMENSIONS, AS AMENDED; THE 1977 MASSHIGHWAY DEPARTMENT CONSTRUCTION AND TRAFFIC STANDARD DETAILS, AS AMENDED, FOR SIGNS AND SUPPORTS; AND THE MASSHIGHWAY DEPARTMENT SIGN LISTINGS 1993 EDITION, AS AMENDED.

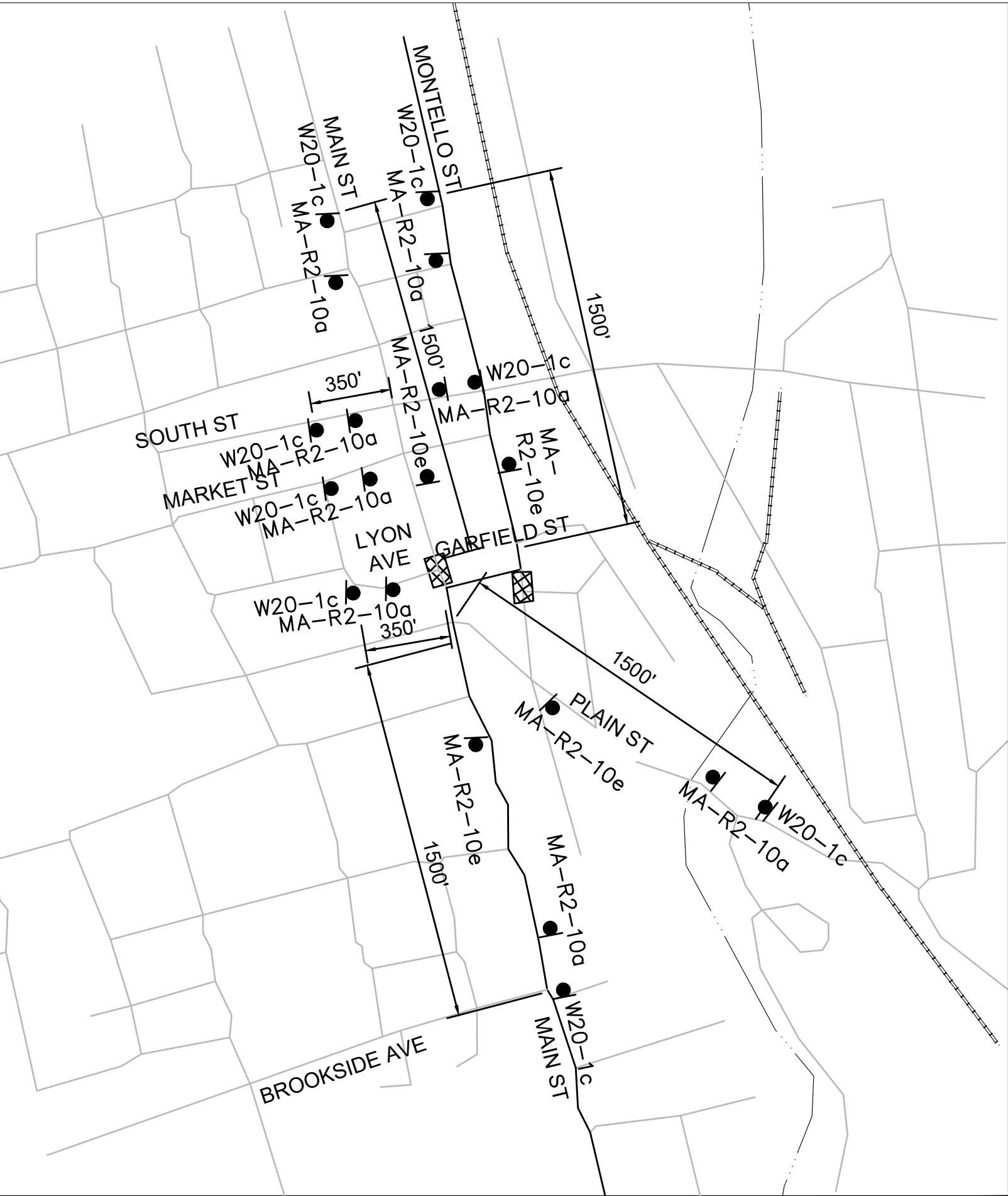


RECTANGULAR RAPID FLASHING BEACON (SOLAR)

SCALE: NTS

TEMPORARY TRAFFIC CONTROL PLAN GENERAL NOTES

1. ALL CONSTRUCTION SIGNING, TEMPORARY TRAFFIC CONTROL DEVICES, AND ROADSIDE ELEMENTS SHALL CONFORM WITH THE 2009 MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES (MUTCD) WITH MASSACHUSETTS AMENDMENTS, THE LATEST REVISIONS OF THE AMERICAN ASSOCIATION OF STATE HIGHWAY AND TRANSPORTATION OFFICIALS, (AASHTO) ROADSIDE DESIGN GUIDE, AASHTO POLICY ON GEOMETRIC DESIGN OF HIGHWAYS AND STREETS, AND NATIONAL COOPERATIVE HIGHWAY RESEARCH PROGRAM (NCHRP) REPORT 350 OR THE AASHTO MANUAL FOR ASSESSING SAFETY HARDWARE (MASH).
2. ALL TEMPORARY PEDESTRIAN PATHWAYS SHALL COMPLY FULLY WITH ALL REQUIREMENTS OF THE LATEST VERSION OF THE MUTCD AND ALL APPLICABLE MASSACHUSETTS ARCHITECTURAL ACCESS BOARD (MAAB) AND AMERICANS WITH DISABILITIES ACT ACCESSIBILITY GUIDELINES (ADAAG) REQUIREMENTS AS AMENDED.
3. WORK HOURS THAT IMPACT THE PUBLIC WAY SHALL NOT AFFECT TRAFFIC PATTERNS DURING PEAK TRAFFIC PERIODS. PEAK TRAFFIC PERIODS ARE DEFINED AS MONDAY THRU FRIDAY 6:00AM-9:00AM AND 3:00PM-7:00PM.
4. DRUMS AND CONES SHALL BE APPROXIMATELY PLACED AND MOVED AS NECESSARY TO MAINTAIN ADEQUATE ACCESS AT ALL TIMES. WORK MAY REQUIRE ADDITIONAL SIGNS, DRUMS AND OTHER TRAFFIC CONTROL DEVICES, GRADING AND TEMPORARY PAVEMENT FOR PASSAGE OF PEDESTRIAN, VEHICULAR AND EMERGENCY TRAFFIC THROUGH THE WORK AREAS, BOTH DURING AND AFTER WORKING HOURS, TO MAINTAIN SUCH ACCESS.
5. THE CONTRACTOR SHALL NOTIFY EACH ABUTTER AT LEAST 24 HOURS IN ADVANCE OF THE START OF ANY WORK THAT WILL REQUIRE THE TEMPORARY CLOSURE OF ACCESS, SUCH AS CONDUIT INSTALLATION, EXISTING PAVEMENT EXCAVATION, TEMPORARY DRIVEWAY PAVEMENT PLACEMENT AND SIMILAR OPERATIONS.
6. GRADE SEPARATIONS IN EXCESS OF 2" DURING NON-WORKING HOURS WILL REQUIRE DELINEATION BY USE OF DRUMS.
7. 11' MINIMUM LANE WIDTHS SHALL BE MAINTAINED.
8. MA-W20-7B SIGNS SHALL BE REPLACED BY W20-7 SIGNS WHEN FLAGGERS ARE USED IN LIEU OF POLICE OFFICER DETAILS.
9. W20-8a SIGNS SHALL BE INSTALLED IN ADVANCE (100' MIN) OF AREAS WHERE UTILITY CASTINGS HAVE BEEN RAISED IN ADVANCE OF PAVING OPERATIONS OR AS REQUESTED BY THE ENGINEER.
10. THE CONTRACTOR SHALL SECURE THE WORK AREA BY AN APPROPRIATE MEANS TO PREVENT UNAUTHORIZED ACCESS AT ALL TIMES.
11. THE GENERAL SEQUENCE OF WORK IS DEPENDENT UPON THE REMOVAL AND RELOCATION OF THE EXISTING UTILITY POLES AND WIRES THAT ARE FOUND TO BE IN CONFLICT WITH THE PROPOSED WORK, BY THE UTILITY COMPANIES. THE CONTRACTOR SHALL SCHEDULE THE WORK IN EACH AREA TO COORDINATE WITH THE POLE RELOCATION WORK.
12. ADVISORY SPEED PLATES (W13-1) SHALL BE USED IF APPROPRIATE AND AS DIRECTED BY THE ENGINEER.



ADVANCE SIGNING SCHEMATIC

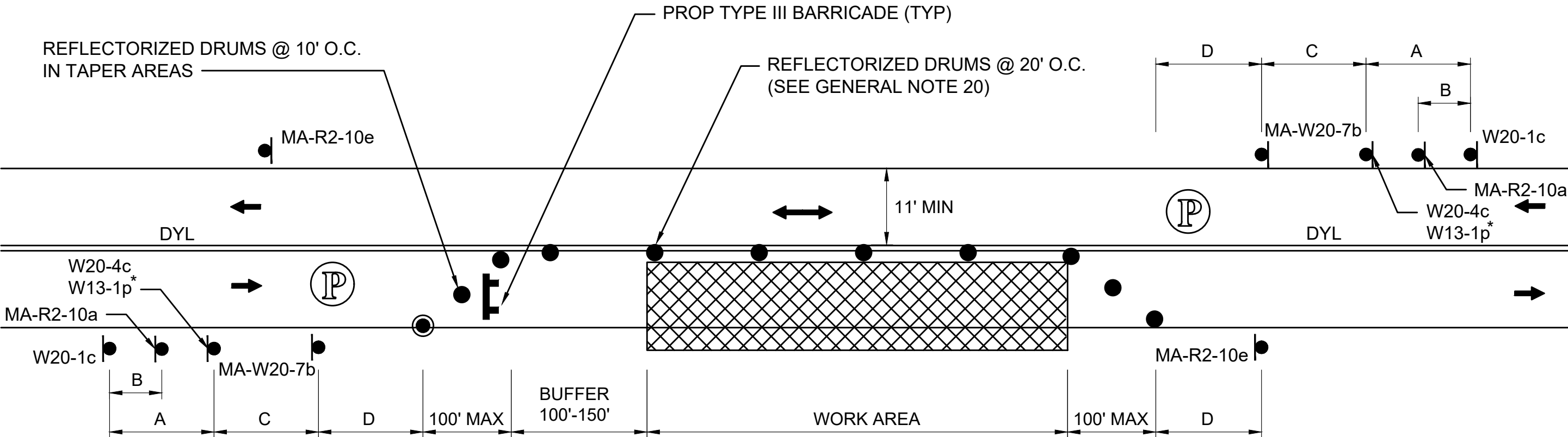
SCALE: N.T.S.

LEGEND	
	POLICE OFFICER
	TRAFFIC SIGNAL
	REFLECTORIZED DRUM
	TEMPORARY CONSTRUCTION SIGN
	TRAFFIC CONE
	TYPE III BARRICADE
	ARROW BOARD (AB) (RIGHT OR LEFT)
	ARROW BOARD (AB) (DOUBLE)
	ARROW BOARD (AB) (CAUTION)
	WORK AREA (PUBLIC ACCESS RESTRICTED)
	TRAFFIC FLOW
	PEDESTRIAN ROUTE
	CONSTRUCTION FENCE
NTS	NOT TO SCALE

LANE TAPER LENGTH FORMULAS	
L= TAPER LENGTH IN FEET	
W= WIDTH OF ROADWAY TO BE SHIFTED OR REDIRECTED IN FEET	
S= POSTED SPEED LIMIT IN MPH	
POSTED SPEED	
40 MPH OR LESS	
$L = \frac{WS^2}{60}$	

ROAD	DISTANCE BETWEEN SIGNS (FEET)			
	A	B	C	D
MAIN STREET	500	250	500	500
MONTELLO ST	500	250	500	500
PLAIN STREET	500	250	500	500

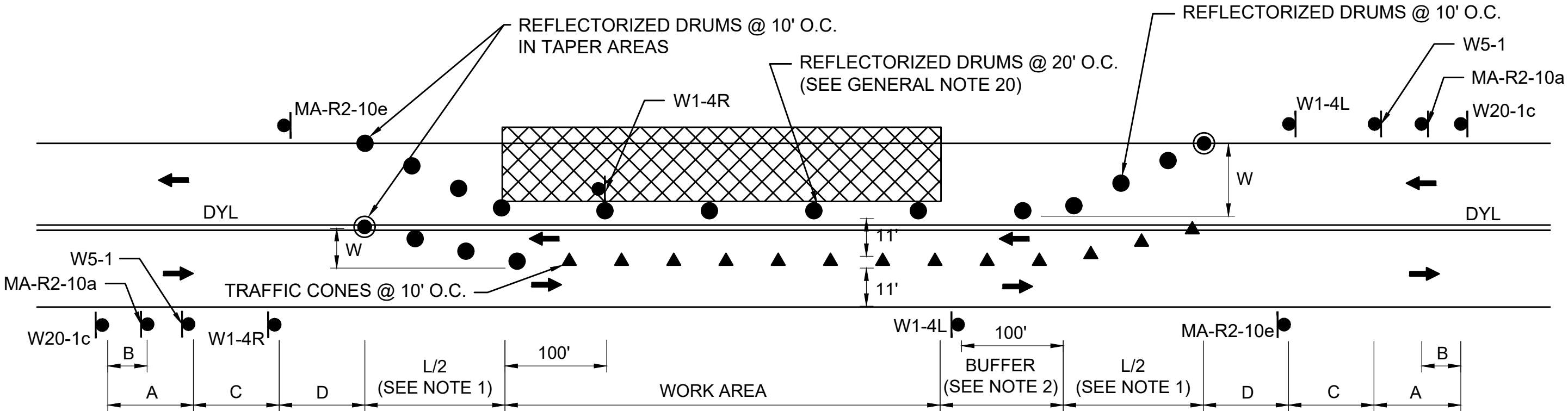
BUFFER SPACING	
SPEED (MPH)	DISTANCE (FEET)
15	80
20	115
25	155
30	200
35	250
40	305
45	360
50	425
55	495
60	570
65	645



- NOTES:
1. * SEE NOTE 12 ON TTCP GENERAL NOTES.

TYPICAL TWO-WAY STREET LANE CLOSURE ALTERNATING TRAFFIC

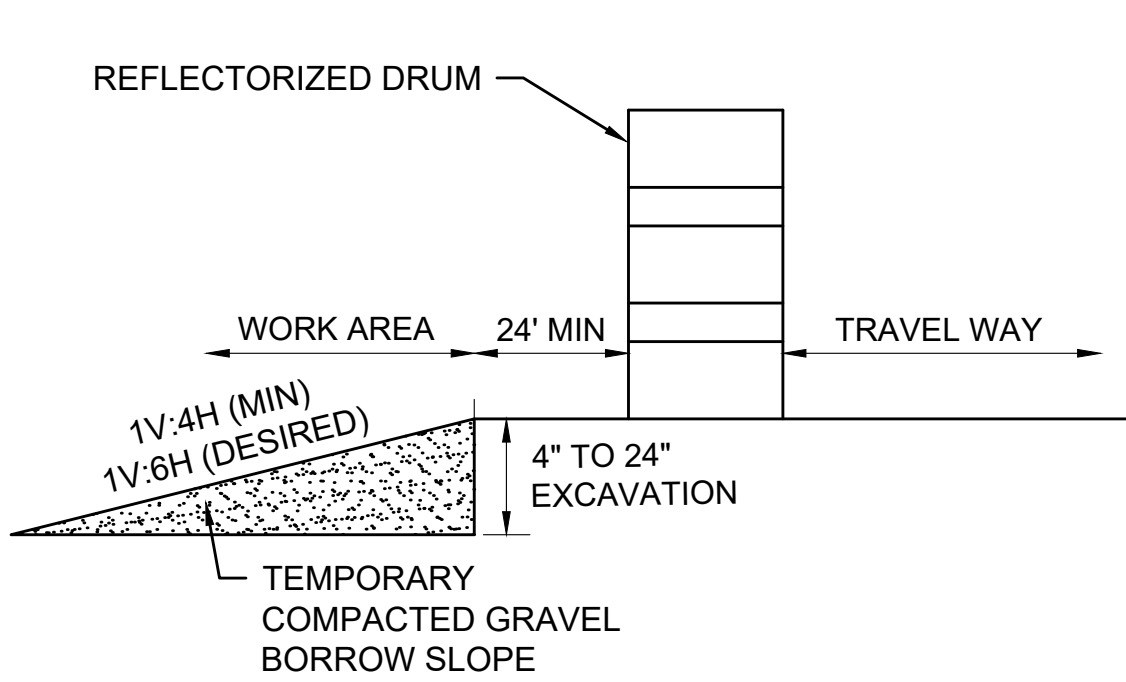
SCALE: NTS



- NOTES:
1. SEE TAPER LENGTH FORMULA
2. SEE BUFFER SPACING CHART

TYPICAL TWO-WAY STREET LANE SHIFT

SCALE: NTS



- NOTE:
1. CONTRACTOR SHALL INSTALL W8-9 SIGN ON ALL ROADWAYS 350 FT IN ADVANCE OF THE START OF DROP-OFF CONDITION.

TYPICAL ROADWAY DROP-OFF PROTECTION

SCALE: N.T.S.

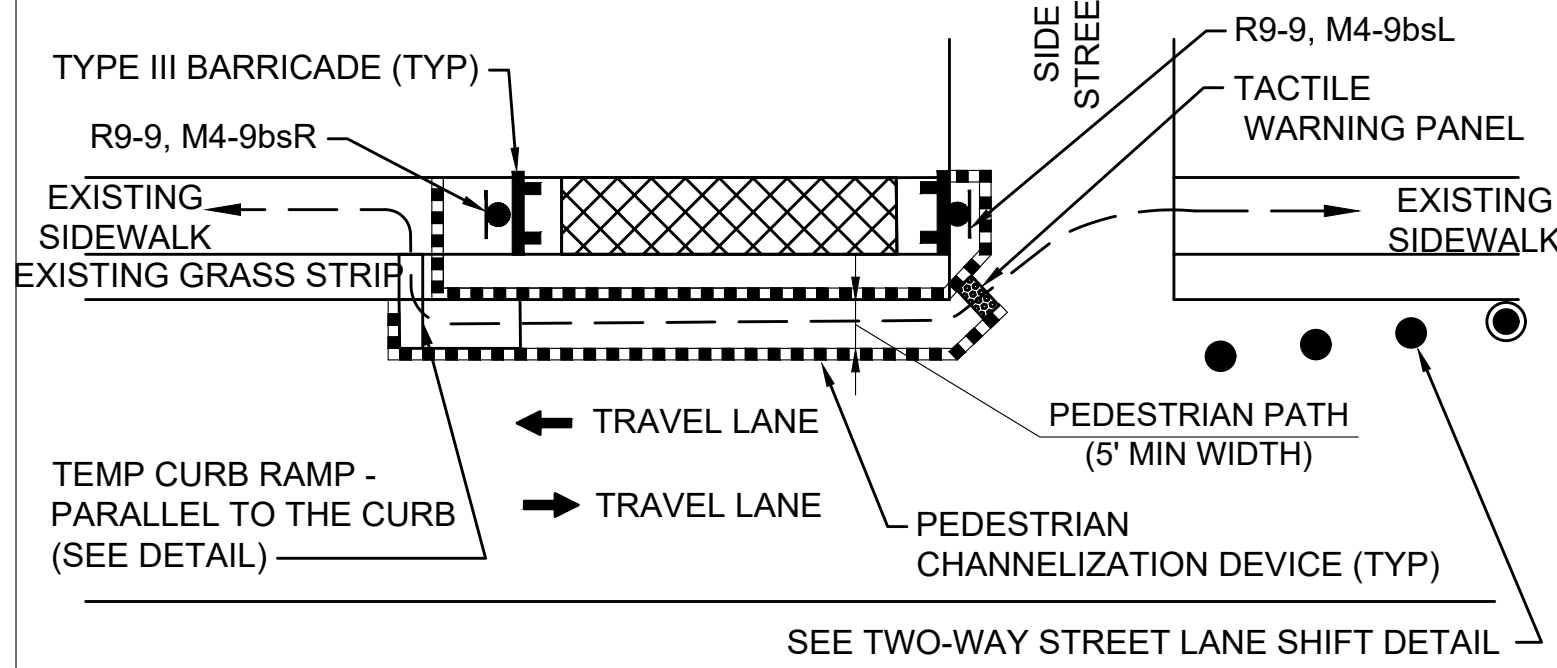
NOTES:

1. ADDITIONAL ADVANCE WARNING SIGNS MAY BE NECESSARY AS DETERMINED BY THE ENGINEER.
2. CONTROLS FOR PEDESTRIAN TRAFFIC ONLY, ARE SHOWN. VEHICULAR TRAFFIC SHALL BE MAINTAINED AS SHOWN ELSEWHERE.
3. STREET LIGHTING SHOULD BE CONSIDERED WHEN LOCATING CONTROL DEVICES.
4. ← → INDICATES DIRECTION OF PEDESTRIAN TRAVEL.
5. IF THE WORK ZONE DOES NOT PERMIT PEDESTRIANS TO TRAVEL ADJACENT TO IT AS SHOWN IN PEDESTRIAN BYPASS TYPE I, THE APPROPRIATE SIGNS SHALL BE INSTALLED TO CROSS PEDESTRIANS TO THE OPPOSITE SIDE OF THE STREET AT EXISTING OR TEMPORARY CROSSWALKS AS SHOWN IN PEDESTRIAN BYPASS TYPE II, AND AS DIRECTED BY THE ENGINEER.
6. PROPOSED TEMPORARY CROSSWALKS SHALL BE 12" WIDE SURFACE APPLIED TAPE OR REFLECTORIZED PAINT AS DIRECTED BY THE ENGINEER.
7. ALL TEMPORARY PEDESTRIAN PATHWAYS SHALL COMPLY FULLY WITH ALL REQUIREMENTS OF THE MUTCD AND ALL APPLICABLE MAAB AND ADAAG REQUIREMENTS AND INCLUDE THE USE OF A COMPLIANT TEMPORARY PEDESTRIAN MANAGEMENT GUIDANCE SYSTEM AT ALL TIMES.
8. CONTRACTOR SHALL MAINTAIN AS WIDE OF A PEDESTRIAN ACCESS AS POSSIBLE AT ALL TIMES. EXCEPT WHERE NECESSARY, THE CONTRACTOR MAY TEMPORARILY REDUCE PEDESTRIAN PATHWAYS TO 4 FEET IN WIDTH (EXCLUDING CURB) FOR NO MORE THAN 200 LINEAR FEET AT A TIME IN ACCORDANCE WITH ALL STANDARDS. A 5' x 5' PASSING AREA SHALL BE PROVIDED IN INTERVALS NOT EXCEEDING 200 FEET.
9. TEMPORARY WHEELCHAIR RAMPS SHALL BE CONSTRUCTED IN ACCORDANCE WITH MASSDOT, MAAB, AND ADAAG REQUIREMENTS.
10. * INDICATES SIGNS ARE NOT REQUIRED IF EXISTING CROSSWALKS ARE USED.

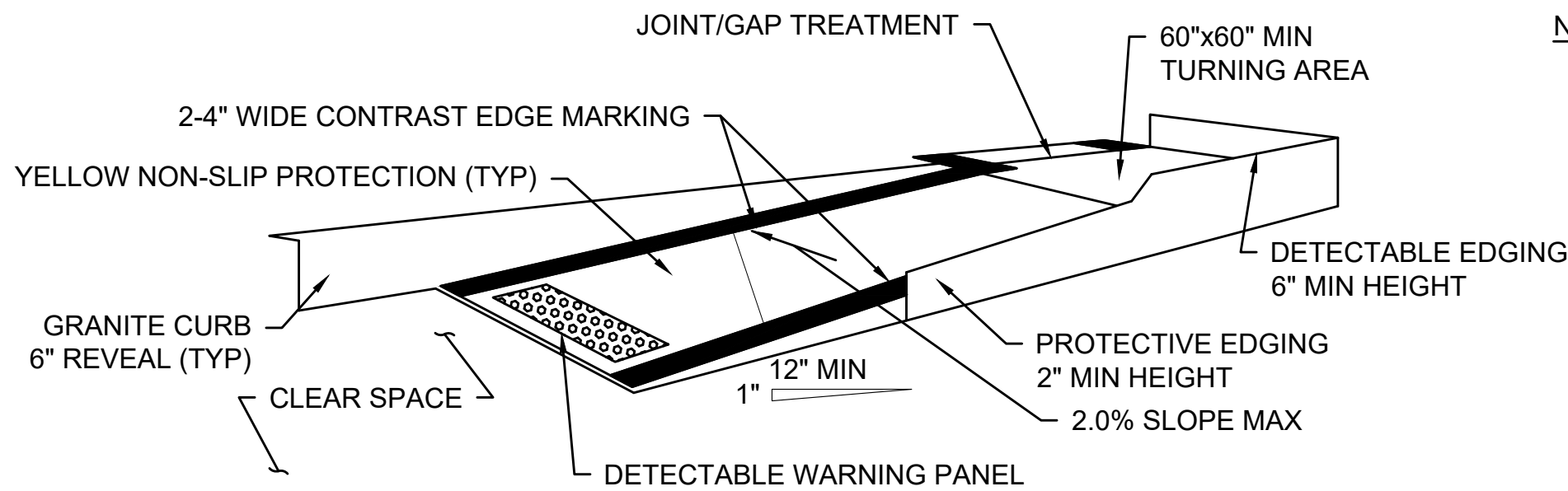
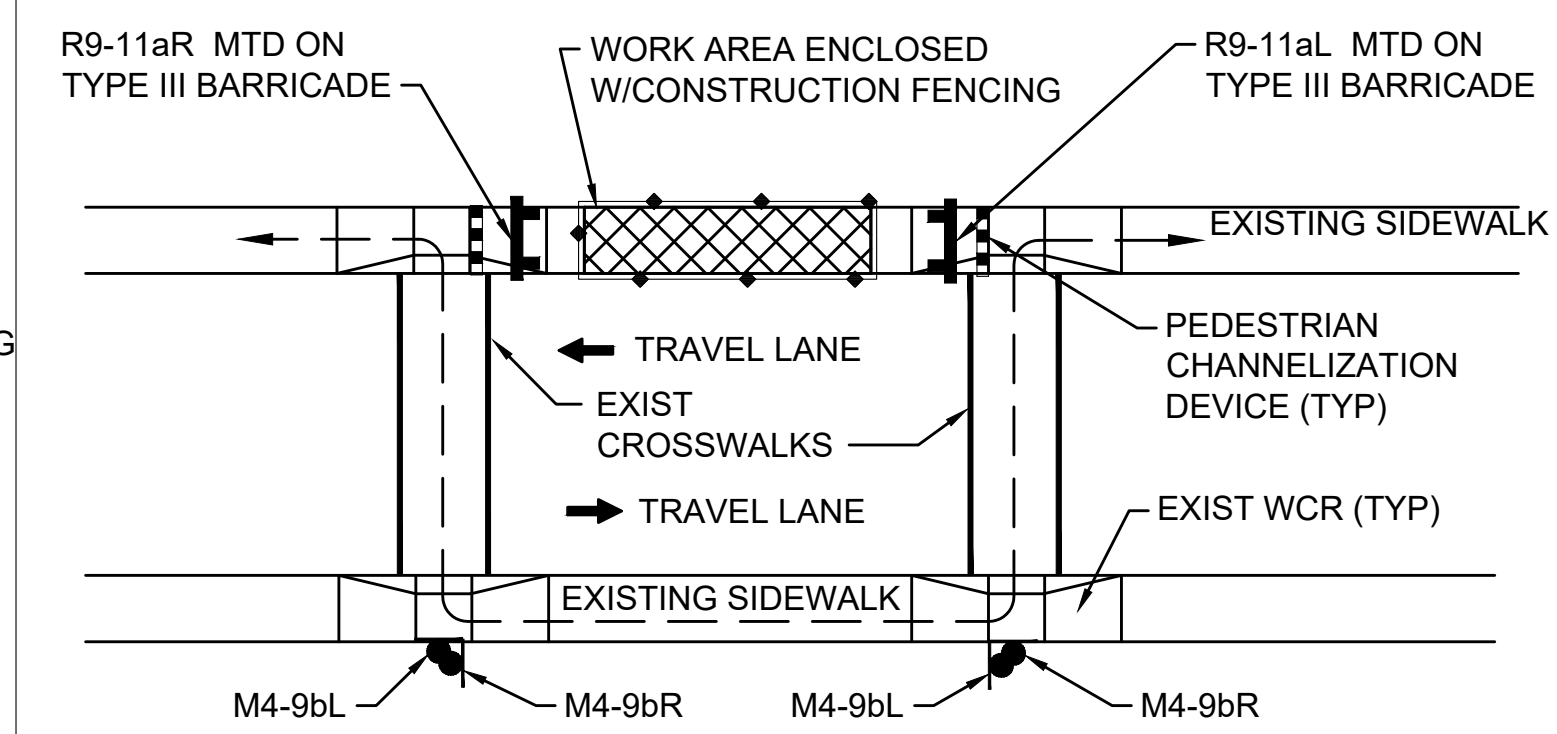
PEDESTRIAN BYPASS DETAIL

SCALE: NTS

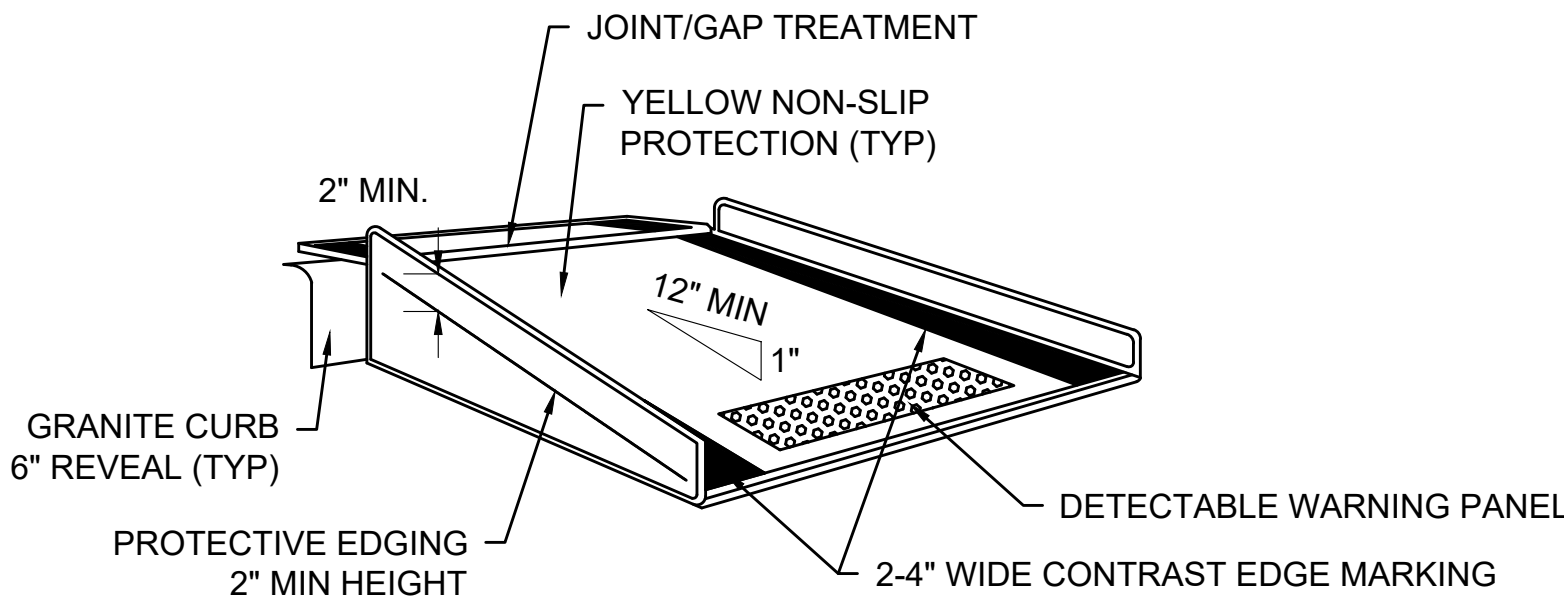
PEDESTRIAN BYPASS TYPE I



PEDESTRIAN BYPASS TYPE II



TEMPORARY CURB RAMP-PARALLEL TO CURB



TEMPORARY CURB RAMP-PERPENDICULAR TO CURB


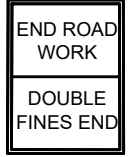




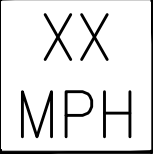




TEMPORARY CURB RAMPS

SCALE: NTS

NOTES:

1. CURB RAMPS SHALL BE 60" MINIMUM WIDTH WITH A FIRM, STABLE AND NON-SLIP SURFACE.
2. PROTECTIVE EDGING WITH A 2" MINIMUM HEIGHT SHALL BE INSTALLED WHEN THE CURB RAMP OR LANDING PLATFORM HAS A VERTICAL DROP OF 6" OR GREATER OR HAS A SIDE APRON SLOPE STEEPER THAN 1:3 (33%). PROTECTIVE EDGING SHOULD BE CONSIDERED WHEN THE CURB RAMPS OR LANDING PLATFORMS HAVE A VERTICAL DROP OF 3" OR MORE.
3. DETECTABLE EDGING WITH 6" MINIMUM HEIGHT AND CONTRASTING COLOR SHALL BE INSTALLED ON ALL CURB RAMP LANDINGS WHERE THE WALKWAY CHANGES DIRECTION (TURNS).
4. THE CURB RAMP WALKWAY AND LANDING AREA SURFACE SHALL BE OF A SOLID CONTINUOUS CONTRASTING COLOR ABUTTING UP TO THE EXISTING SIDEWALK.
5. CURB RAMPS AND LANDINGS SHOULD HAVE A 1:50 (2%) MAX CROSS-SLOPE.
6. CLEAR SPACE OF 48"x48" MINIMUM SHALL BE PROVIDED ABOVE AND BELOW THE CURB RAMP.
7. WATER FLOW IN THE GUTTER SYSTEM SHALL HAVE MINIMAL RESTRICTION.
8. LATERAL JOINTS OR GAPS BETWEEN SURFACES SHALL BE LESS THAN 0.5" WIDTH.
9. CHANGES BETWEEN SURFACE HEIGHTS SHOULD NOT EXCEED 0.5" LATERAL EDGES SHOULD BE VERTICAL UP TO 0.25" HIGH, AND BEVELED AT 1:2 BETWEEN 0.25" AND 0.5" HEIGHT.
10. IF A TEMPORARY PEDESTRIAN RAMP LEADS TO A CROSSWALK, THEN A DETECTABLE WARNING PAD MUST BE ADHERED TO THE BASE OF THE RAMP. IF IT LEADS TO A PROTECTED PEDESTRIAN BYPASS THAT DOES NOT CONFLICT WITH VEHICULAR TRAFFIC, THEN A PAD SHALL NOT BE INSTALLED ON THE RAMP.






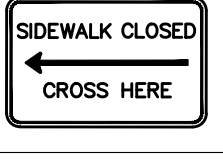
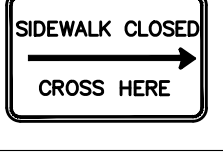
TEMPORARY TRAFFIC CONTROL SIGN SUMMARY

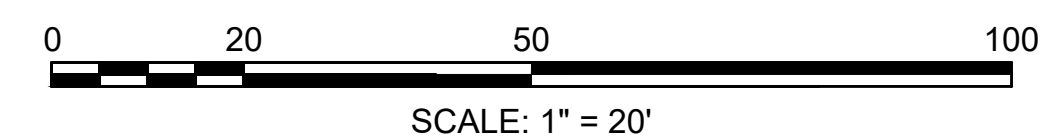
IDENTIFI- CATION NUMBER	SIZE OF SIGN		TEXT	TEXT DIMENSIONS (INCHES)			COLOR		
	WIDTH	HEIGHT		LETTER HEIGHT	VERTICAL SPACING	ARROW RTE. MKR.	BACK- GROUND	LEGEND	BORDER
MA-R2-10a	48"	36"		AS PER MASSDOT STANDARD ↓			FLUOR- ESCENT ORANGE	BLACK	BLACK
MA-R2-10e	36"	48"					WHITE FLUOR- ESCENT ORANGE	BLACK	BLACK
							WHITE		
W1-4L	36"	36"		SEE FHWA "STANDARD HIGHWAY SIGNS, 2004 EDITION"; AS AMENDED			FLUOR- ESCENT ORANGE	BLACK	BLACK
W1-4R	36"	36"					FLUOR- ESCENT ORANGE	BLACK	BLACK
W5-1	36"	36"					FLUOR- ESCENT ORANGE	BLACK	BLACK
W8-9	36"	36"					FLUOR- ESCENT ORANGE	BLACK	BLACK
W13-1p(xx)	24"	24"					FLUOR- ESCENT ORANGE	BLACK	BLACK
W20-1c	36"	36"					FLUOR- ESCENT ORANGE	BLACK	BLACK
W20-4c	36"	36"					FLUOR- ESCENT ORANGE	BLACK	BLACK
W20-7	36"	36"					FLUOR- ESCENT ORANGE	BLACK	BLACK
MA-W20-7b	36"	36"		AS PER MASSDOT STANDARD			FLUOR- ESCENT ORANGE	BLACK	BLACK

NOTES:

1. HIGH INTENSITY REFLECTIVE SHEETING SHALL BE USED FOR ALL SIGNS. SEE FHWA "STANDARD HIGHWAY SIGNS, 2004 EDITION" FOR TEXT DIMENSIONS, AS AMENDED; THE 1977 MASSHIGHWAY DEPARTMENT CONSTRUCTION AND TRAFFIC STANDARD DETAILS, AS AMENDED, FOR SIGNS AND SUPPORTS; THE MASSHIGHWAY DEPARTMENT SIGN LISTINGS 1993 EDITION, AS AMENDED; THE 2009 MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES FOR MOUNTING REQUIREMENTS; AND THE 2017 MassDOT STANDARD SIGNS BOOK, AS AMENDED.
2. ALL SIGNS SHOWN GRAPHICALLY FOR INFORMATION ONLY. SIGN VENDOR SHALL FABRICATE ALL SIGNS IN ACCORDANCE WITH THE APPLICABLE STANDARDS.

TEMPORARY TRAFFIC CONTROL SIGN SUMMARY

IDENTIFI- CATION NUMBER	SIZE OF SIGN		TEXT	TEXT DIMENSIONS (INCHES)			COLOR		
	WIDTH	HEIGHT		LETTER HEIGHT	VERTICAL SPACING	ARROW RTE. MKR.	BACK- GROUND	LEGEND	BORDER
M4-9bL	30"	24"		SEE FHWA "STANDARD HIGHWAY SIGNS, 2004 EDITION"; AS AMENDED			FLUOR- ESCENT ORANGE	BLACK	BLACK
M4-9bR	30"	24"					FLUOR- ESCENT ORANGE	BLACK	BLACK
M4-9bsL	30"	24"					FLUOR- ESCENT ORANGE	BLACK	BLACK
M4-9bsR	30"	24"					FLUOR- ESCENT ORANGE	BLACK	BLACK
R9-9	30"	18"					WHITE	BLACK	BLACK
R9-11aL	48"	24"					WHITE	BLACK	BLACK
R9-11aR	48"	24"					WHITE	BLACK	BLACK



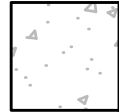
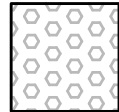
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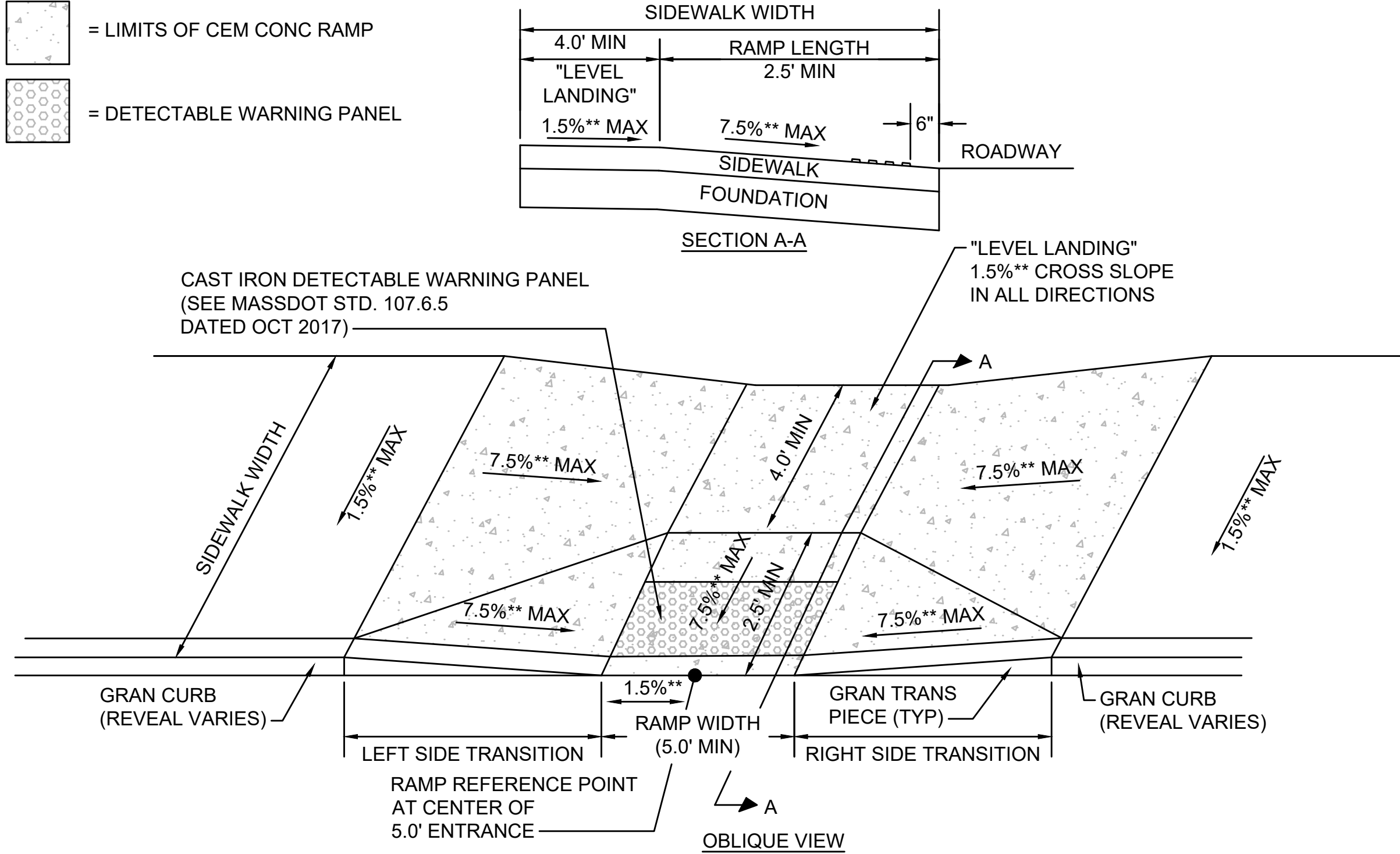
1. ALL PROPOSED PAVEMENT MARKINGS SHALL BE REFLECTORIZED THERMOPLASTIC UNLESS OTHERWISE NOTED.
2. WHERE EXISTING PAVEMENT MARKINGS ARE DIFFERENT THAN PROPOSED MARKINGS SHOWN, REMOVE BY AN APPROVED METHOD.
3. RETAIN ALL EXISTING SIGNS UNLESS OTHERWISE NOTED.

1. SPECIALTY CROSSWALK TO BE ENDURABLE DENS SYSTEMS POLYMER CEMENT SURFACING
2. PATTERN:
FIELD: ORIGINAL HERRINGBONE
BORDER: BRICK HEADER
3. COLOR:
FIELD: BRICK RED
BORDER: DARK GRAY
4. MOCK UP TO BE PROVIDED BY CONTRACTOR AND COLOR AND PATTERN TO BE APPROVED BY LANDSCAPE ARCHITECT OR OWNER'S REPRESENTATIVE PRIOR TO WORK.

WHEELCHAIR RAMP DETAIL - 12.50' OR GREATER - TABLE								
NO.	LOCATION	RAMP WIDTH	RAMP LENGTH	LEFT SIDE		RIGHT SIDE		NOTES
				REVEAL	TRANS LENGTH	REVEAL	TRANS LENGTH	
2	STA. 50+98.9, 21.5' R BL-MAIN STREET	5'-0"	3'-10"	6"±	7'-8"	6"±	6'-6"	SEE SHEET 5

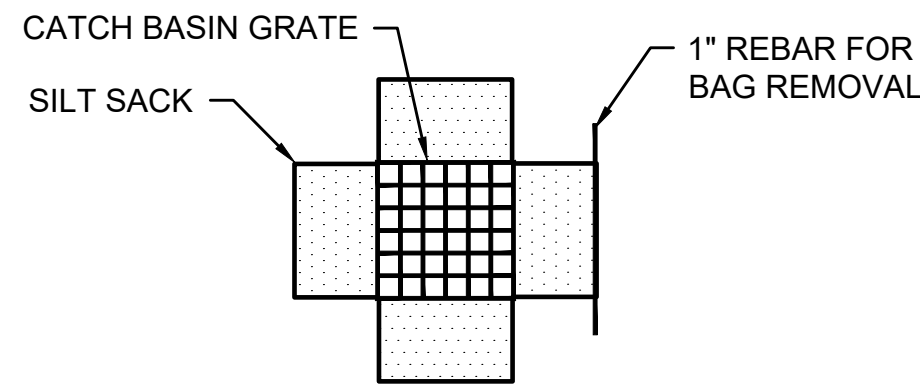
LEGEND

-  = LIMITS OF CEM CONC RAMP
-  = DETECTABLE WARNING PANEL

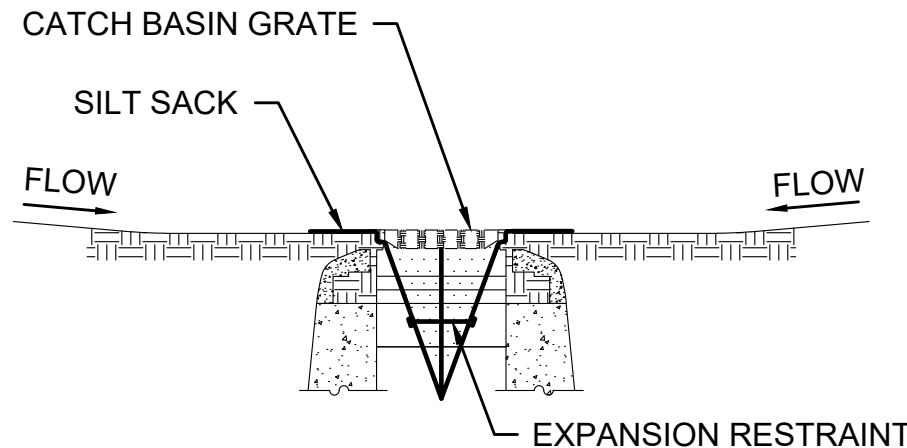


WHEELCHAIR RAMP - 6.50' TO 12.50'

SCALE: N.T.S.



PLAN VIEW



SECTION VIEW

NOTES:

1. INSTALL SILT SACK IN EXISTING CATCH BASINS, BEFORE COMMENCING WORK, AND IN NEW CATCH BASINS IMMEDIATELY AFTER INSTALLATION OF STRUCTURE. MAINTAIN UNTIL BINDER COURSE PAVING IS COMPLETE OR A PERMANENT STAND OF GRASS HAS BEEN ESTABLISHED.
2. GRATE TO BE PLACED OVER SILT SACK.
3. SILT SACK SHALL BE INSPECTED PERIODICALLY AND AFTER ALL STORM EVENTS AND CLEANING OR REPLACEMENT SHALL BE PERFORMED

INLET PROTECTION - SILT SACK
IN CATCH BASIN

SCALE: N.T.S.

NOTES:


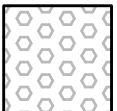
1. WHEELCHAIR RAMPS INTENDED TO TRANSITION TO A FULL CURB REVEAL OF 6"±. WHERE EXISTING CURB REVEALS ARE LESS THAN 6"±, A CURB AND SIDEWALK SECTION SHALL BE INSTALLED TO PROVIDE A TRANSITION REGION FROM THE WHEELCHAIR RAMP TO MEET EXISTING GRADES.

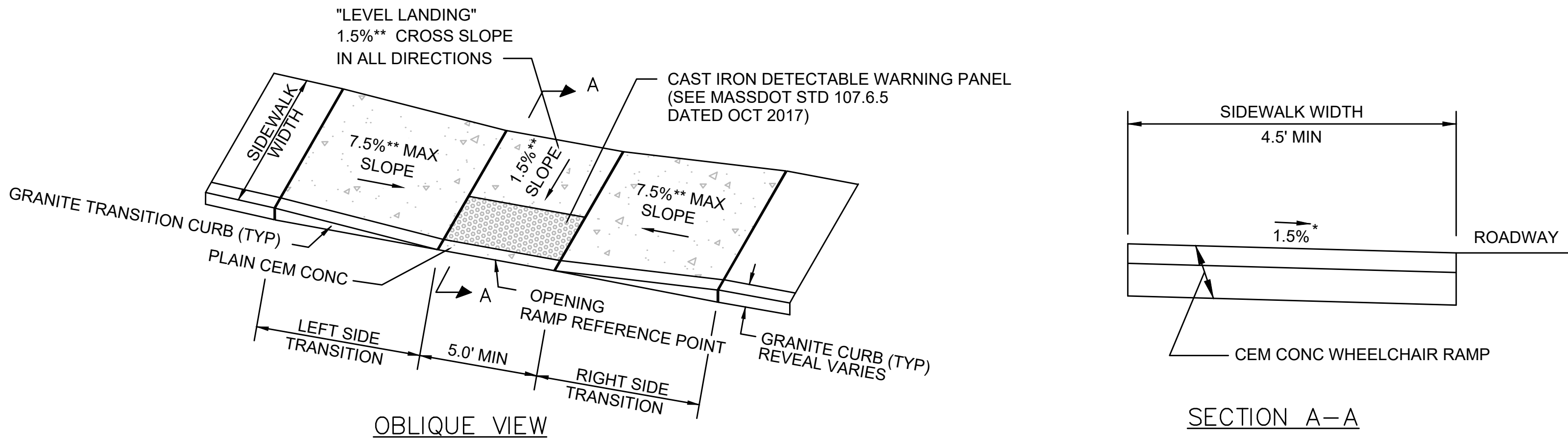
*TRANSITION IS CURVED, SEE PLANS FOR ADDITIONAL INFORMATION.
**TOLERANCE FOR CONSTRUCTION ±0.5%
NEGATIVE (-) ROADWAY GUTTER SLOPE DENOTES A LOW SIDE TRANSITION.

BROCKTON
KEITH PARK OFFSITE IMPROVEMENTS
CONSTRUCTION DETAILS
SHEET 12 OF 12

WHEELCHAIR RAMP DETAIL - NARROW SIDEWALK - TABLE								
NO.	LOCATION	RAMP WIDTH	RAMP LENGTH	LEFT SIDE		RIGHT SIDE		NOTES
				REVEAL	TRANS LENGTH	REVEAL	TRANS LENGTH	
1	STA. 50+98.6, 21.4' L BL-MAIN STREET	5'-0"	8'-0"	6"±	*6'-6"	6"±	7'-8"	SEE SHEET 5
3	STA. 31+31.4, 14.0' L BL-MONTELLA STREET	5'-0"	6'-8"	6"	11'-0"	6"±	6'-6"	SEE SHEET 5
4	STA. 31+31.4, 14.0' R BL-MONTELLA STREET	5'-0"	6'-6"	6"	6'-6"	6"	11'-0"	SEE SHEET 5

LEGEND

-  = LIMITS OF CEM CONC RAMP
-  = DETECTABLE WARNING PANEL



WHEELCHAIR RAMP - NARROW SIDEWALK

SCALE: N.T.S.